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ATTORNEY DOCKET NO. 21011.9041U2

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

COPY OF THE ORIGINAL FILED

In re application of

Sheplak et al.

Serial No.: 09/997,113

Filed: November 28, 2001

Confirmation No.: 3632

For: MEMS BASED ACOUSTIC ARRAY

Group Art Unit: 2811

Examiner: Unassigned

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INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
Washington, D.C. 20231

NEEDLE & ROSENBERG, P.C.  
The Candler Building  
127 Peachtree Street, N.E.  
Atlanta, Georgia 30303-1811

August 29, 2002

Sir:

Pursuant to the requirements of 37 C.F.R. § 1.56, submitted herewith on the accompanying form PTO 1449 is a listing of documents known to the applicants and/or their attorneys. Copies of these documents are enclosed.

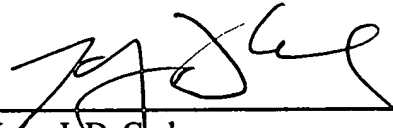
Consideration of the cited documents and making the same of record in the prosecution of the above-noted application are respectfully requested.

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CONFIRMATION No. 3632  
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Applicants believe that this Information Disclosure Statement is being filed in accordance with 37 C.F.R. § 1.97(b) (3), before the mailing date of the first Office Action on the merits. Therefore, no fee is believed to be due. However, the Commissioner is hereby authorized to charge any fees which may be required, or to credit any overpayment, to Deposit Account No. 14-0629.

Respectfully submitted,


NEEDLE & ROSENBERG, P.C.

  
\_\_\_\_\_  
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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231, on the date shown below.

  
\_\_\_\_\_  
Kean J. DeCarlo

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Form PTO-1449  
U.S. DEPARTMENT OF COMMERCE (Rev. 7-80)  
PATENT AND TRADEMARK OFFICE

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SERIAL NO. 09/997,113

APPLICANT: Sheplak et al.

LIST OF PRIOR ART CITED BY APPLICANT  
(Use several sheets if necessary)

FILING DATE: November 28, 1991

GROUP: 2811

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

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FOREIGN PATENT DOCUMENTS


OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

J	A1	"Sound and Sources of Sound," Dowling et al., Ellis Horwood, Ltd., Chp. 7, 147-167 (1983)
J	A2	"Design and Use of Microphone Directional Arrays for Aeroacoustic Measurements," Humpherys, Jr. et al., AIAA Paper 98-0471, 1-24 (1998)
J	A3	"A Directional Array Approach for the Measurement Rotor Source Distributions with Controlled Spatial Resolution," Brooks, et al., <u>Journal of Sound and Vibration</u> Vol. 112(1):192-197 (1987)
J	A4	"Aeroacoustic Measurements of a Wing-Flap Configuration," K.R. Meadows, et al., AIAA Paper 97-1595, 1-20, 1997
J	A5	"Microelectromechanical Systems, Advance Materials and Fabrications Methods," <u>National Research Council</u> , NMAB-483, National Academy Press, 1997
L	A6	"A Review of Silicon Microphones," R.P. Scheeper, A.G.H. van de Donk, W. Olthuis and P. Bergveld, <u>Sensors and Actuators A</u> Vol 44, 1-11 (1994)
J	A7	"A Theoretical Study of Transducer Noise in Piezoresistive and Capacitive Silicon Pressure Sensors," R. R. Spencer, B.M. Fleischer, P.W. Barth, and J.B. Angell, <u>IEEE Transaction of Electron Devices</u> , Vol. ED-35:1289-1298, 1988
J	A8	"Pressure and Wall Shear Stress Sensors for Turbulence Measurements," Kalvesten et al, Thesis, Royal Institute of Technology, Stockholm, Sweden (1996)
J	A9	"Small Silicon Based Pressure Transducers for Measurements in Turbulent Boundary Layer, Lofdahl et al., <u>Experiments Fluids</u> , Vol. 17, 24-31 (1994)
	A10	"A Small -Size Silicon Microphone for Measurements in Turbulent Gas Flows," Kalvesten et al., <u>Sensors and Actuators</u> , Vol. 45, 103-108 (1994)
	A11	"A Silicon Subminiature Microphone Based on Piezoresistive Polysilicon Strain Gauges," Schellin et al., <u>Sensors and Actuators</u> , Vol. 32, 555-559 (1992)
	A12	"Low Pressure Acoustic Sensors for Airborne Sound With Piezoresistive Monocrystalline Silicon and Electrochemically etched Diaphragms," Schellin et al. <u>Sensors and Actuators</u> , Vol. 46 (47), 156-160 (1995)



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A13	"A Wafer-Bonded, Silicon-Nitride Membrane Microphone with Dielectrically-Isolated, Single-Crystal Silicon PiezoResistors," Sheplak et al., Technical Digest, Solid-State Sensor and Actuator Workshop, Hilton Head, SC, 23-26 June 1998.
A14	Kulite Semiconductor Products, Inc. MIC-093 specification sheet
A15	"Large Deflections of Clamped Circular Plates Under Tension and Transitions to Membrane Behavior," Sheplak et al., <u>Journal of Applied Mechanics</u> , Vol. 65, No. 1, 107-115 (1998)
A16	"Scaling Relations for Piezoresistive Microphones," Saini, et al., Proceedings of IMECE 2000: International Mechanical Engineering Congress and Exposition, Orlando, FL, November 5-10, 2000
A17	"A Model of $1/f$ Noise in Polysilicon Resistors, S.L. Jang, <u>Solid-State Electron</u> , Vol. 33, 1155-1162 (1990)
A18	"A Piezoresistive Microphone for Aeroacoustic Measurements," Arnold et al., Proceedings of 2001 ASME International Mechanical Engineering Congress and Exposition, New York, NY, November 11-16, 2001
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

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